



FEMA Region III Ordinance Review Checklist

Draft – May 5, 2009

Community: Falls Church CID: _____ State: VA

Reviewer: A. Meehan Date: 1/11/10 (circle one) FEMA (State) Other: _____

Reviewer's Determination: ☐ Compliant ☐ NON - Compliant

Approved by: _____ (FEMA only) Date: 1/11/10

NOTE: The "Item Description" is a synopsis of the regulatory requirement and should not be construed as a complete description. Refer to the actual language contained in the National Flood Insurance Program Rules and Regulations for complete descriptions of the required standards.

Flood Zones: A (AE) AE(w/oFW)

AO AH V VE

Level of Regulations: a b c (d) e

(If a community has both floodways & coastal high hazard areas, circle d & e.)

Item Description (Section reference to NFIP Regulations follows)	State Model	Community's Ordinance																						
		Review	Approval																					
Required provisions for all ordinances																								
1. Citation of Statutory Authorization. [59.22(a)(2)]																								
2. Purpose section citing health, safety, and welfare reasons for adoption. [59.22(1)]		48-617																						
<u>(3)</u> Adopt definitions of: <table border="0"> <tr> <td><input checked="" type="checkbox"/> Base Flood</td> <td><input checked="" type="checkbox"/> Manufactured Home</td> </tr> <tr> <td><input checked="" type="checkbox"/> Base Flood Elevation</td> <td><input checked="" type="checkbox"/> Manufactured Home Park or Subdivision</td> </tr> <tr> <td><input type="checkbox"/> Basement</td> <td><input type="checkbox"/> New Construction/Date _____</td> </tr> <tr> <td><input checked="" type="checkbox"/> Development</td> <td><input type="checkbox"/> New Manufactured Home Park or Subdivision</td> </tr> <tr> <td><input type="checkbox"/> Existing Manufactured Home Park or Subdivision</td> <td><input checked="" type="checkbox"/> Recreational Vehicle</td> </tr> <tr> <td><input checked="" type="checkbox"/> Expansion to an Existing Manufactured Home Park or Subdivision</td> <td><input type="checkbox"/> Special Flood Hazard Area</td> </tr> <tr> <td><input type="checkbox"/> Flood Insurance Rate Map</td> <td><input checked="" type="checkbox"/> Start of Construction</td> </tr> <tr> <td><input type="checkbox"/> Flood Insurance Study</td> <td><input type="checkbox"/> Structure</td> </tr> <tr> <td><input checked="" type="checkbox"/> Floodway</td> <td><input checked="" type="checkbox"/> Substantial Damage</td> </tr> <tr> <td><input type="checkbox"/> Lowest Floor</td> <td><input checked="" type="checkbox"/> Substantial Improvement</td> </tr> <tr> <td></td> <td><input type="checkbox"/> Violation</td> </tr> </table>	<input checked="" type="checkbox"/> Base Flood	<input checked="" type="checkbox"/> Manufactured Home	<input checked="" type="checkbox"/> Base Flood Elevation	<input checked="" type="checkbox"/> Manufactured Home Park or Subdivision	<input type="checkbox"/> Basement	<input type="checkbox"/> New Construction/Date _____	<input checked="" type="checkbox"/> Development	<input type="checkbox"/> New Manufactured Home Park or Subdivision	<input type="checkbox"/> Existing Manufactured Home Park or Subdivision	<input checked="" type="checkbox"/> Recreational Vehicle	<input checked="" type="checkbox"/> Expansion to an Existing Manufactured Home Park or Subdivision	<input type="checkbox"/> Special Flood Hazard Area	<input type="checkbox"/> Flood Insurance Rate Map	<input checked="" type="checkbox"/> Start of Construction	<input type="checkbox"/> Flood Insurance Study	<input type="checkbox"/> Structure	<input checked="" type="checkbox"/> Floodway	<input checked="" type="checkbox"/> Substantial Damage	<input type="checkbox"/> Lowest Floor	<input checked="" type="checkbox"/> Substantial Improvement		<input type="checkbox"/> Violation		<p>NOTE: Definitions for <u>Existing, Expansion to An Existing, Manufactured Home Park or Subdivision or New Manufactured Home Park</u> are not required if community requires elevation of all manufactured homes to the BFE (1986 regulations).</p> <p><input type="checkbox"/> Community requires elevation of all manufactured homes placed/substantially improved to the BFE (1986 regulations).</p>
<input checked="" type="checkbox"/> Base Flood	<input checked="" type="checkbox"/> Manufactured Home																							
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	<input type="checkbox"/> Violation																							
& other definitions as appropriate such as: <input checked="" type="checkbox"/> Floodproofing <input checked="" type="checkbox"/> Historic Structures <input type="checkbox"/> Highest Adjacent Grade (A0) [59.1]		48-618																						
<u>(4)</u> Adopt or reference correct Flood Insurance Rate Map (and where applicable, Flood Boundary Floodway Map) and date. [60.2(h)]		48-640 a Missing																						
5. Adopt or reference correct Flood Insurance Study and date. [60.2(h)]		48-640a																						
6. Include a reference to all subsequent revisions and amendments to above-referenced flood maps and Flood Insurance Study.		48-640a																						
7. Adequate enforcement provisions including a violations/penalty section specifying community actions to assure compliance. [60.2(e)]		48-617																						
8. Abrogation and Greater Restriction section. [60.1(b)]		48-615																						

Community: _____

Level of Regulations: a b c d e

Item Description (Section reference of NFIP Regulations follows)	State Model	Community's Ordinance	
		Review	Approval
Required provisions for all ordinances (continued)			
9. Disclaimer of Liability (Degree of flood protection required by the ordinance is considered reasonable but does not imply total flood protection.)		48-614	
10. Severability section. (If any section, provision or portion of the ordinance is deemed unconstitutional or invalid by a court, the remainder of the ordinance shall be effective.)		48-616	
11. Framework for administering the ordinance (permit system, establish office for administering the ordinance, recordkeeping, etc.) [59.22(b)(1)]		48-675	
12. Designate title of community Floodplain Administrator [59.22 (b)]		48-641	
13. Requirement to submit new technical data: within 6 months, notify FEMA of changes in the base flood elevation by submitting technical or scientific data so insurance & floodplain management can be based on current data. [65.3]		Missing Add sect. 3.4 from model	
14. Variance section with evaluation criteria & insurance notice. [60.6(a)]		48-738	
15. For adopted ordinance: Signature of Appropriate Official & Certification Date ordinance adopted: <u>Effective Date 7/16/04</u> Ordinance Number _____	N/A	Only applicable after adoption	
60.3 (a) When no SFHA's have been identified, no water surface elevation data has been provided, and floodways and coastal high hazards areas have not been identified and the community applies for participation in the NFIP, the following are required:			
16. Require permits for all proposed construction or other development including placement of manufactured homes. [60.3(a)(1)]	N/A for (b)-(e)	48-675	
17. Assure that all other State and Federal permits are obtained. [60.3(a)(2)]		48-675	
18. Review permits to assure sites are reasonably safe from flooding and require for new construction and substantial improvements in flood-prone areas: [60.3(a)(3)]		48-677	
(a) Anchoring (including manufactured homes) to prevent floatation, collapse, or lateral movement. [60.3(a)(3)(i)]	See Model for ideas	48-648 Add to 48-712 to	
(b) Use of flood-resistant materials. [60.3(a)(3)(ii)]		48-712 Needs model large	
(c) Construction methods/practices that minimize flood damage. [60.3(a)(3)(iii)]		48-683 48-683	
(d) Electrical, heating, ventilation, plumbing, air conditioning equipment, and other service facilities designed and/or located to prevent water entry or accumulation. [60.3(a)(3)(iv)]		48-683 d	
19. Review subdivision proposals to assure that: (a) Such proposals minimize flood damage. [60.3(a)(4)(i)] (b) Public utilities and facilities are located & constructed so as to minimize flood damage. [60.3(a)(4)(ii)] (c) Adequate drainage is provided. [60.3(a)(4)(iii)]		Missing 	
20. Require new and replacement water supply and sanitary sewer systems to be designed to minimize or eliminate infiltration. [60.3(a)(5) & (6)]		48-683a	
21. Require on-site waste disposal systems be located to avoid impairment or contamination. [60.3(a)(6)(ii)]		48-683 c	

Community: _____

Level of Regulations: a b c d e

Item Description (Section reference of NFIP Regulations follows)	State Model	Community's Ordinance	
		Review	Approval
60.3(b) When SFHA's are identified by the publication of a community's FHBM or FIRM, but water surface elevation data have not been provided or a floodway or coastal high hazard area has not been identified, then all the above ordinance provisions for 60.3(a) and the following are required:			
22. Require permits for all proposed construction and other development within SFHAs on the FIRM. [60.3(b)(1)]		48-675	
23. Require base flood elevation data for subdivision proposals or other developments greater than 50 lots or 5 acres. [60.3(b)(3)]		48-680	
24. In A Zones, in the absence of FEMA BFE data and floodway data, consider other available data as basis for elevating residential structures to or above base flood level, and for floodproofing or elevating nonresidential structures to or above base flood level. [60.3(b)(4)]		N/A	
25. Where BFE data are utilized, obtain and maintain records of lowest floor and floodproofing elevations for new construction and substantial improvements. [60.3(b)(5)]		48-675	
26. In riverine areas, notify neighboring communities of watercourse alterations or relocations. [60.3(b)(6)]		48-676	Sect. 48-674
27. Maintain flood carrying capacity of altered or relocated watercourse. [60.3(b)(7)]		Missing in sect. though in 48-675	
28. Require all manufactured homes to be elevated and anchored to resist flotation, collapse, or lateral movement. [60.3(b)(8)]		48-678	
60.3(c) When final flood elevations, but no floodways or coastal high hazard areas have been provided on a community's FIRM, then all the above ordinance provisions for 60.3(a) & 60.3(b) and the following are required:			
29. Require all new and substantially improved <u>residential</u> structures within A1-30, AE, and AH Zones have their lowest floor (including basement) elevated to or above the BFE. [60.3(c)(2)]		48-711 + 4 change wording to 48-712 elevated for	
30. In AO Zones, require that new and substantially improved <u>residential</u> structures have their lowest floor (including basement) at or above the highest adjacent grade at least as high as the FIRM's depth number. [60.3(c)(7)]	✓	Community has no AO zones	residential + elevated or floodproofed for non-res
31. Require that new and substantially improved <u>nonresidential</u> structures within A1-30, AE, and AH Zones have their lowest floor elevated or floodproofed to or above the base flood elevation. [60.3(c)(3)]		48-711 + 48-712	
32. In AO Zones, require new and substantially improved <u>nonresidential</u> structures have their lowest floor elevated or completely floodproofed above the highest adjacent grade to at least as high as the depth number on the FIRM. [60.3(c)(8)]	✓	Community has no AO zones.	
33. Require that, for floodproofed non-residential structures, a <u>registered professional/architect</u> certify that the design and methods of construction meet requirements at (c) (3) (ii). [60.3(c)(4)]		Missing	

Community: _____

Level of Regulations: a b c d e

Item Description (Section reference of NFIP Regulations follows)	State Model	Community's Ordinance	
		Review	Approval
60.3(c) (continued)			
34. Require, for all new construction and substantial improvements, that fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access or storage have permanent openings designed to allow the entry and exit of flood waters in accordance with specifications of 60.3(c)(5).		Missing	
35. Within Zones A1-30 and AE without a designated floodway, new development shall not be permitted unless it is demonstrated that the cumulative effect of all past and projected development will not increase the BFE by more than 1 foot. [60.3(c)(10)]	<input checked="" type="checkbox"/>	All AE zones have floodways designated.	
		N/A	
36. In Zones AO and AH, require drainage paths around structures on slopes to guide water away from structures. [60.3(c)(11)]	<input checked="" type="checkbox"/>	Community has neither AO nor AH zones.	
37. Require that manufactured homes placed or substantially improved within A1-30, AH, and AE Zones, which meet one of the following location criteria, to be elevated such that the lowest floor is at or above the BFE and be securely anchored: i. outside a manufactured home park or subdivision; ii. in a new manufactured home park or subdivision; iii. in an expansion to an existing manufactured home park or subdivision; iv. on a site in an existing park which a manufactured home has incurred substantial damage as a result of flood. [60.3(c)(6)]	<input checked="" type="checkbox"/>	Community requires elevation of all manufactured homes placed/substantially improved to the BFE (1986 regulations).	
		Missing 48-679	
38. In A1-30, AH, and AE Zones, require that manufactured homes to be placed or substantially improved in an <u>existing</u> manufactured home park to be elevated so that: i. the lowest floor is at or above the BFE <u>or</u> ii. the chassis is supported by reinforced piers no less than 36 inches above grade and securely anchored. [60.3(c)(12)]	<input type="checkbox"/>	Community requires elevation of all manufactured homes placed/substantially improved to the BFE (1986 regulations).	
		Missing ii 48-678	
39. In A1-30, AH, and AE Zones, all recreational vehicles to be placed on a site must be elevated and anchored <u>or</u> be on the site for less than 180 consecutive days <u>or</u> be fully licensed and highway ready. [60.3(c)(14)]		48-679	
60.3(d) When final flood elevations and floodway delineations have been provided on a community's FIRM, then all the above ordinance provisions for 60.3(a), 60.3(b) & 60.3(c) and the following are required:			
40. In a regulatory floodway, prohibit any encroachment which would cause any increase in the base flood level unless hydrologic and hydraulic analyses prove that the proposed encroachment would not increase flood levels during the base flood discharge. [60.3(d)(3)]		48-710	

MITIGATION ACTION PLANS

Section 9: Page 37

NORTHERN VIRGINIA REGIONAL HAZARD MITIGATION PLAN

City of Falls Church

		HAZARD RISK		
		Low	Moderate	High
OVERALL CAPABILITY	High		✓	
	Moderate			
	Limited			

City of Falls Church Mitigation Action 1	Evacuation planning and management
Category:	Emergency Services
Hazard(s) Addressed:	All Hazards
Lead Agency/Department Responsible:	Public Safety
Estimated Cost:	\$50,000
Potential Funding Sources:	U.S. Department of Homeland Security, Office of Domestic Preparedness: Homeland Security Grant Program (HSGP)
Implementation Schedule:	12 Months from time of award
Priority (High, Moderate, Low):	High

City of Falls Church Mitigation Action 2	Warning Systems. AM radio system
Category:	Emergency Services
Hazard(s) Addressed:	All Hazards
Lead Agency/Department Responsible:	Public Safety
Estimated Cost:	\$45,000 to \$55,000
Potential Funding Sources:	U.S. Department of Homeland Security, Office of Domestic Preparedness: Homeland Security Grant Program (HSGP)
Implementation Schedule:	12 Months from time of award
Priority (High, Moderate, Low):	High

MITIGATION ACTION PLANS

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NORTHERN VIRGINIA REGIONAL HAZARD MITIGATION PLAN

City of Falls Church Mitigation Action 3	Critical facilities protection. Physical security of all water system facilities and system	
Category:	Property Protection	
Hazard(s) Addressed:	All Hazards	
Lead Agency/Department Responsible:	Department of Environmental Services	
Estimated Cost:	\$1,200,000	
Potential Funding Sources:	U.S. Department of Homeland Security, Office of Domestic Preparedness: Homeland Security Grant Program (HSGP), Buffer Zone Protection Program (BZPP); U.S. Environmental Protection Agency: Vulnerability Assessments and Related Security Improvements at Large Drinking Water Utilities	
Implementation Schedule:	24 Months from time of award	
Priority (High, Moderate, Low):	High	

City of Falls Church Mitigation Action 4	Critical facilities protection. Water system storage tank monitoring system.	
Category:	Property Protection	
Hazard(s) Addressed:	All Hazards	
Lead Agency/Department Responsible:	Department of Environmental Services	
Estimated Cost:	\$700,000	
Potential Funding Sources:	U.S. Department of Homeland Security, Office of Domestic Preparedness: Homeland Security Grant Program (HSGP), Buffer Zone Protection Program (BZPP); U.S. Environmental Protection Agency: Vulnerability Assessments and Related Security Improvements at Large Drinking Water Utilities	
Implementation Schedule:	24 Months from time of award	
Priority (High, Moderate, Low):	High	

City of Falls Church Mitigation Action 5	Drainage system maintenance	
Category:	Prevention	
Hazard(s) Addressed:	All Hazards	
Lead Agency/Department Responsible:	Department of Environmental Services	
Estimated Cost:	\$400,000	
Potential Funding Sources:	To be determined	
Implementation Schedule:	24 Months from the time of award	
Priority (High, Moderate, Low):	Moderate	

City of Falls Church Mitigation Action 6	Stormwater Management Regulations	
Category:	Prevention	
Hazard(s) Addressed:	All Hazards	
Lead Agency/Department Responsible:	Department of Environmental Services	
Estimated Cost:	\$200,000	
Potential Funding Sources:	To be determined	
Implementation Schedule:	12 Months from the time of award	
Priority (High, Moderate, Low):	Moderate	

MITIGATION ACTION PLANS

Section 9: Page 39

NORTHERN VIRGINIA REGIONAL HAZARD MITIGATION PLAN

City of Falls Church Mitigation Action 7	Emergency response training and exercises	
Category:	Emergency Services	
Hazard(s) Addressed:	All Hazards	
Lead Agency/Department Responsible:	Public Safety	
Estimated Cost:	\$24,000	
Potential Funding Sources:	U.S. Department of Homeland Security, Office of Domestic Preparedness: Homeland Security Grant Program (HSGP)	
Implementation Schedule:	12 Months from time of award	
Priority (High, Moderate, Low):	Moderate	

City of Falls Church Mitigation Action 8	Floodplain regulations	
Category:	Prevention	
Hazard(s) Addressed:	All Hazards	
Lead Agency/Department Responsible:	Department of Environmental Services	
Estimated Cost:	\$100,000	
Potential Funding Sources:	To be determined	
Implementation Schedule:	12 Months from the time of award	
Priority (High, Moderate, Low):	Low	



A Fairfax County, Va.
publication

FLOOD PROTECTION INFORMATION

September 1, 2009

Dam Safety and Flood Warning System in Fairfax County

Your property is in or near an area subject
to flooding

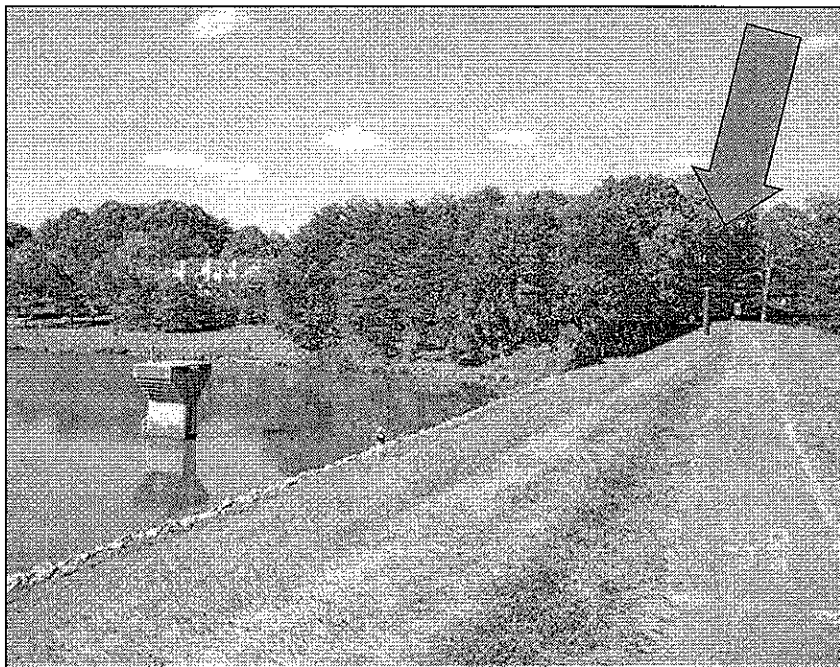
Dam safety is a very important aspect of the work performed by the stormwater program which includes Stormwater Planning, Maintenance and Stormwater Management of Public Works and Environmental Services in collaboration with the Office of Emergency Management (OEM).

Staff of the stormwater program and OEM have been working together to develop flood detection and response plans in the unlikely event of a dam breach.

There are a number of large dams in Fairfax County; some are privately owned and others are owned or maintained by the county. There are many small, man-made ponds or impoundments, some of which contain dams as part of the structure.

The state regulated dams owned and maintained by the county are inspected regularly by county staff and are safe.

Electronic devices to monitor possible flooding conditions have been installed at eight dam sites and in the Belle View and Huntington communities. There are plans to install additional devices during 2009.



Royal Lake dam with monitoring equipment on top (arrow).

Fairfax County photo.

Additionally, the staff of the stormwater program and OEM are working with police, fire and rescue and the 911 call center to develop training and drills to exercise the plans.

Any development proposed within the mapped dam break inundation zone of state regulated dams must be identified on

all preliminary plats, subdivision plans, site plans and minor site plan submissions effective July 1, 2009.

A dam break inundation zone is the area downstream of a dam that would be inundated by the failure of the dam. Visit the web site at www.fairfaxcounty.gov/dpwes/dams/state.htm

FLOOD PROTECTION INFORMATION

Natural and Beneficial Functions of Floodplains

Floodplain lands and waters in Fairfax County combine to form a complex, dynamic physical and biological system. When portions of floodplains are preserved or restored to their natural state, they provide many such benefits as animal habitats, recreation and flood prevention.

Natural resources of floodplains are categorized as water resources, living resources and societal resources.

Water Resources: Natural Flood and Erosion Control Functions

Over time, floodplains develop their own ways to handle flooding and erosion with natural features that provide floodwater storage and conveyance, reduce flood velocities and flood peaks and reduce sedimentation in stream channels. Natural controls of flooding and erosion help maintain water quality by filtering pollutants from runoff, processing organic wastes and moderating temperature fluctuations. These natural controls contribute to recharging groundwater by promoting infiltration and refreshing aquifers, and by reducing the frequency and duration of low surface flows.

Living Resources: Biologic Functions

Floodplains enhance biological productivity by supporting plant growth. This helps maintain biodiversity and the integrity of ecosystems. Floodplains provide excellent habitats for fish and wildlife by serving as breeding and feeding grounds. They create and enhance waterfowl habitats, and help protect habitats for rare and endangered species. Huntley Meadows Park in Fairfax County has 1,425 acres of the Dogue Creek floodplain

which provides diverse habitats including wetlands, meadows and mature forest. In the park there are fox, deer, beaver, otter and more than 200 species of birds.

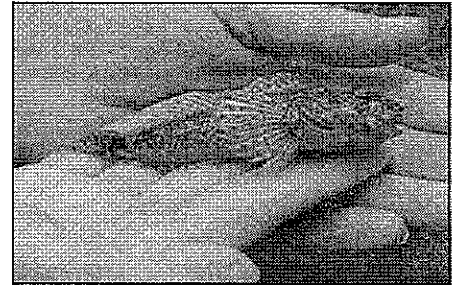
Societal Resources: Educational Functions

People benefit from floodplains through the food they provide, the recreation they afford and the scientific knowledge gained. Floodplains provide open space, which may be used to restore and enhance forest lands, or for recreation or simple enjoyment of the aesthetic beauty. Floodplains provide areas for scientific study and outdoor education and contain cultural resources such as historic or archaeological sites, and they can increase the overall quality of life, a role that has been undervalued. Quality of life is enhanced by transforming floodplains from problem areas into value-added assets.

Dyke Marsh is an example of floodplains improving the quality of life. On the west bank of the Potomac River, about 95 miles from the Chesapeake Bay, Dyke Marsh contains 485 acres of tidal marsh, floodplain and swamp forest. Dyke Marsh is one of the largest remaining freshwater tidal wetlands in the Washington area. The marsh features parks, bike paths, board walks, open spaces, wildlife conservation areas and other aesthetics, which are important to county residents. Assets like these enhance the community and appeal to employers, investors, residents, property owners and tourists.

The Importance of Riparian Buffers and Streams

Riparian buffers are the vegetated



Cottus Girardi. Fairfax County photo.

areas adjacent to water bodies including streams, lakes, rivers, marshes and shorelines. These buffers provide a multitude of benefits and ecosystem services. They stabilize shorelines and stream banks which prevent erosion, filter pollutants from stormwater runoff and provide critical habitat for wildlife. Just like natural floodplains, these buffer areas help reduce flooding downstream by slowing and absorbing excess water during rain storms. All of these functions protect water quality and support stream health in the tiny headwater stream channels in back yards and neighborhoods, the larger streams in the county, the Potomac River and ultimately, the Chesapeake Bay.

One of the most effective methods used to promote these buffers is to allow the natural vegetation to grow along the banks of streams and channels. Dumping yard waste into these streams and buffers should be avoided. Healthy stream buffers prevent or reduce the migration of pollutants into the stream. The greatest benefits occur when floodplains, streams and buffers are allowed to function in their natural condition. For more information about how to plant or restore riparian buffers, and how to protect local waterways, call 703-324-5500, TTY 711.

FLOOD PROTECTION INFORMATION

After a Flood: Clean Up and Stay Safe

The Federal Emergency Management Agency (FEMA) is an excellent source of information on flood prevention, protection, insurance, safety and clean up. This information is excerpted from a FEMA news release dated April 2, 2009.

FEMA urges residents to clean up their homes and businesses as soon as possible. It is not necessary to wait for an inspection before beginning the clean up. Remain cautious and return home only when it is safe to do so. Document all losses and damages by taking photos first or by making a list, and then begin removing all flood damaged personal property immediately. FEMA offers these suggested precautions:

- Confirm the water supply is safe to drink. Listen for news reports to learn whether the water supply has been contaminated. Carry bottled drinking water and discard any food products that may have come in contact with flood water
- Wear protective clothing. Protect yourself during cleanup by wearing boots, gloves and masks. Clean and disinfect everything that flood water touched
- Ventilate your home and business. Open all doors and windows to allow air to circulate and dry your building. Dehumidify as soon as possible
- Service damaged septic tanks, cesspools, pit and leaching systems as soon as possible. Damaged sewage systems are serious health hazards
- Make a list of lost or damaged items. Be sure to include the age and value of the items lost and if possible, have receipts for those items
- Prevent mold growth. Wash all surface areas that came in contact with flood water. Disinfect and wipe surfaces dry with paper towels to minimize bacterial contamination
- Isolate moldy objects. Seal moldy trash in plastic bags and remove them immediately. Objects that can be saved should be dried or frozen as soon as possible. Freezing inactivates mold

More information is available at <http://www.fema.gov> and at <http://www.bt.cdc.gov/disasters/floods/>

Flood Safety Tips

- **Do Not Walk Through Flowing Water**

Currents are deceptive; six inches of moving water can knock an adult off his feet; standing water is not safe as the ground beneath may have fallen away

- **Do Not Drive Through a Flooded Area**

More people die by drowning in their cars during floods than at any other time; roads and bridges may be washed out; do not drive around road barriers; do not drive through water

- **Stay Away from Power Lines and Electrical Wires**

The number two killer during a flood is electrocution; electrical currents travel through water; report downed power lines to the electric company or county emergency personnel

- **Ask the Power Company to Turn Off the Electricity**

Some appliances such as televisions keep electrical charges after they have been unplugged; do not use appliances or motors that have been wet until after they have been cleaned, dried and serviced

- **Use Care Indoors and Out**

After a flood, the ground outside and floors inside are littered with debris including broken glass and nails; floors and stairs that have been covered with mud can be slippery

- **Be Alert for Gas Leaks**

Use a flashlight to check for damage; don't smoke or use candles, lanterns or open flames until after the gas has been turned off and the area has been ventilated

FLOOD PROTECTION INFORMATION

Drainage System Maintenance and Prevention of Flood Damage

Fairfax County depends on the cooperation and assistance from county residents to prevent flooding: do not dump or throw anything into ditches, storm drains or streams; this is a class 2 misdemeanor. Dumping anything into a ditch or stream is a violation of the County Code. Yard waste, plastic bags, bottles, cans and other trash accumulate and block storm drain channels and culverts. To report dumping or debris in ditches, streams or drainage structures call Fairfax County Stormwater Maintenance at 703-877-2800, TTY 711.

Call Fairfax County Land Development Services at 703-324-1720, TTY 711, before building, altering, re-grading or filling a property. A permit may be required to ensure that projects do not cause flooding on adjacent properties.

If a property is located in a flood prone area, such as a Special Flood Hazard Area (SFHA), and a flood is expected, call the appropriate power companies to shut off the gas and electricity to the property. Do not store valuables in basements or on floors that are vulnerable to flooding or are below the base flood elevation, which is the 100 year flood elevation. Create a detailed check list of actions to take prior to a flood.

Property Protection Measures

There are several ways to protect a building from flood damage. Re-grading the lot to ensure that water runs away from the building, or constructing a small floodwall or earthen berm may help. These methods work best on large lots, if a flood is not expected to be too deep, and if changes in grade will not affect adjacent properties.

Land Development Services (LDS) of Fairfax County can provide information on the types of permits and the reviews required for this kind of work. The telephone number for LDS is 703-324-1720.

Another approach is to waterproof walls and place watertight closures over potential entrance ways. This method is

not recommended for houses with basements or if water will exceed a two foot depth. A licensed engineer should be consulted before making these changes.

A third approach is to raise the house above flood levels. Flood water can then pass under the house without causing damage.

Some houses, including those that are not in a floodplain, may have sewers that back up into the basement during heavy rain. A plug for the basement floor drain or shower drain, or standpipes for these drains, may stop a back up if the water is not more than one or two feet deep. Plugs are available at many hardware and plumbing supply stores. A plumber may assist with sewer backups by installing an overhead sewer or back-flow valves.

These measures are known as flood proofing or retrofitting. Any alteration to a building or land, including re-grading or filling, requires a permit from the Fairfax County Office of Land Development Services (LDS).

More information about flood proofing is available at www.fema.gov/hazard/flood/fl_before.shtm



A flooded street in Fairfax County.

FLOOD PROTECTION INFORMATION

Flood Warning System

In addition to the Community Emergency Alert Network (CEAN), flood emergency information will be disseminated by the Fairfax County Office of Public Affairs (OPA) using numerous methods including:

- www.FairfaxCounty.gov or call the emergency information line at 703-817-7771, TTY 711
- Fairfax County's cable television station on channel 16 and all major media outlets in the region
- Emergency radio for Fairfax County at 1670 AM
- Real Simple Syndication (RSS) feeds; a quick way for interested residents who sign up to receive news feeds through their RSS reader. Visit www.fairfaxcounty.gov/rssfeeds/
- 703-FAIRFAX (703-324-7329); a day-to-day information and referral line, staffed by OPA, used during emergency events
- Door-to-door contact; OPA works with public safety agencies to deliver critical life, safety and property conservation messages throughout neighborhoods
- Community meetings allow residents to learn the latest news in their area
- Reverse 911 procedures

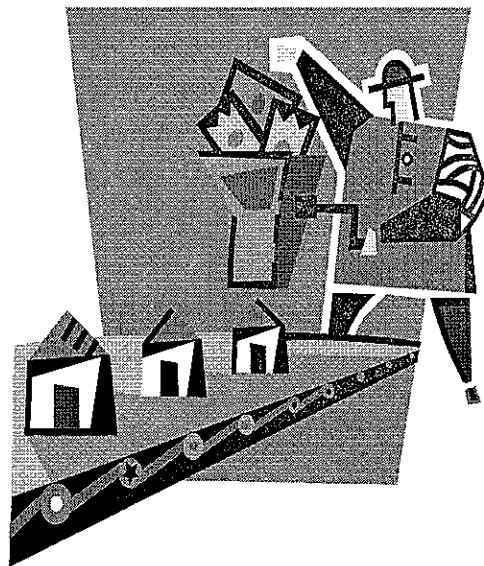
Floodplain Development Permit Requirements

Construction in a floodplain is not allowed under most circumstances in Fairfax County. Before construction, placement of fill or excavation in a floodplain, a permit must be obtained from Land Development Services, Department of Public Works and Environmental Services. Any activity outside the floodplain but within a natural or man-made water course may require a permit.

The county Zoning Ordinance may allow an addition to an existing building that is located in a floodplain. Additions that are allowed in a floodplain and new structures or additions adjacent to a floodplain must be elevated 18 inches above the 100 year flood level. No construction or filling is allowed in a floodplain

without county approval and an engineering analysis to ensure the project will not increase flood damage elsewhere.

For more information call 703-324-1720, TTY 711.



FLOOD PROTECTION INFORMATION

Please Don't Litter

The Potomac River is a source of drinking water for more than one million Fairfax County residents.

Streets, gutters, storm drains and streams are not trash cans. Anything that is thrown from a vehicle, left on a parking lot or dumped into a storm drain is carried by rain or melting snow into storm drains and directly into streams and lakes, not to a waste water treatment plant. Cigarette butts, plastic and glass bottles, food containers, cans, plastic shopping bags and anything else that is not disposed of properly, flows to the Potomac River and ultimately to the Chesapeake Bay.

Trash is unsightly; it degrades residential and commercial property values; kills the fish, turtles and other wildlife; damages wetlands; and pollutes the Potomac River and the Chesapeake Bay. Litter blocks storm drains which may cause flooded streets, traffic delays and property damage to homes, vehicles and businesses.



Floodplain Management Regulations and Substantial Improvement/Damage Requirements

Land use and development in Fairfax County is governed by the Zoning Ordinance, the Comprehensive Plan, the County Code and the Public Facilities Manual (PFM).

Sections in the PFM address floodplain regulations that were written for flood safety and other dangers; to prevent loss of life; preserve wildlife habitats; maintain the natural integrity and function of streams; protect water quality; and to increase ground water recharge.

Fairfax County reviews all proposed uses to determine whether the land is located in a floodplain. The county participates in the National Flood Insurance Program (NFIP). Program rules state if the cost of reconstruction, rehabilitation, addition or other improvements to a building equals or exceeds 50 percent of the building's market value, then the building must meet the same construction requirements as a new building. Substantially damaged buildings must meet the same standards. A residence damaged to the extent that the cost of repairs equals or exceeds 50 percent of the building's market value (not including the land) before it was damaged, must be elevated above the base flood elevation.



The Fairfax County Community Emergency Alert Network (CEAN) delivers important emergency alerts, notifications and updates during a major crisis or emergency and provides day-to-day notices about weather and traffic. Through the Riverwatch notification group, participants are notified if flooding is anticipated based on rainfall measurements and other data. Messages are delivered to all devices registered, such as e-mail accounts, pagers and cell phones.

To register, visit: www.fairfaxcounty.gov/cean

Residents who live in flood prone areas are encouraged to be prepared for heavy rainfalls and tidal surges, particularly during hurricane season (June through November). For information on flood preparedness visit <http://www.fairfaxcounty.gov/dpwes/stormwater/>

FLOOD PROTECTION INFORMATION

The Local Flood Hazard

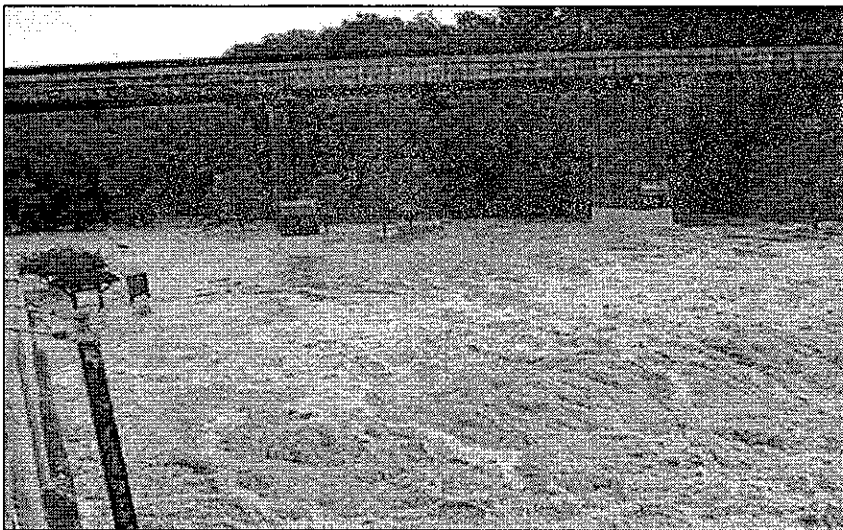
Local flood hazards in Fairfax County come from three main sources. These are:

- Floodplains, rivers and creeks during heavy storms, also known as riverine flooding.
- Inadequate overland relief during such intense rain events as thunder storms with micro bursts.
- Tidal surcharges in the lower Potomac River resulting from hurricanes and tropical storms

Flooding can occur with little or no warning. There was little warning of the June 2006 flood that damaged more than 300 homes in the county.

Extreme care must be exercised when dealing with flood waters. Even though flood waters appear to move slowly, six inches of moving water can knock an adult off his feet. One foot of flood water will float a small vehicle.

Some properties may be at a higher elevation and have not flooded recently. However, if a property is in a floodplain or a Special Flood Hazard Area (SFHA), it is likely that the property will be impacted by floodwaters.



Flood waters during Tropical Storm Hanna in September 2008. Fairfax County photo.

National Flood Insurance Program and the Revised DFIRMs

Homeowner's insurance policies may not cover damage from floods. However, Fairfax County participates in the National Flood Insurance Program. Therefore, a federally backed flood insurance policy can be purchased. This insurance is available to all property owners, including properties that have been flooded.*

Flood insurance policies that have been purchased as a bank or lender requirement or to obtain a mortgage or a home improvement loan, may cover damage to the structure but not the contents. It is recommended that property owners review their policy with their insurance agent to determine if the contents are insured. If there was no damage caused during a previous storm or flood that does not guarantee there will be no damage from the next flood. It is prudent to obtain flood insurance for buildings and their contents.

* If a building is not shown to be in a Special Flood Hazard Area (SFHA) on the existing Flood Insurance Rate Maps (FIRMs), but is shown on the new Digital FIRMs (DFIRMS) to be inside the new SFHA, there is a "grandfather" provision which allows a property owner to obtain a lower rate on flood insurance after the maps are revised. The property owner must have an active policy before the new DFIRMS are adopted, which may be in June 2010.

**A Fairfax County, Va.
publication**

Stormwater Planning,
Public Works and Environmental
Services

Phone: 703-324-5500, TTY 711

Fax: 703-802-5955

or email

DPWES-FloodProtect@fairfaxcounty.gov



To request this information in an alternate format, call DPWES at 703-324-5500, TTY 711.



Fairfax County
Department of Public Works and
Environmental Services
Stormwater Planning
12000 Government Center Parkway
Suite 449
Fairfax, VA 22035-5502

Fairfax County Gains Improved FEMA Rating for CRS Program

Flood insurance premiums have dropped for residents of Fairfax County due to an improved rating from the Department of Homeland Security, Federal Emergency Management Agency (DHS/FEMA).

With this enhanced rating, residents who have or may purchase flood insurance on their properties in Special Flood Hazard Areas (SFHAs) will realize lower premiums for this protection. The rating change was effective May 1, 2009.

County participation in the CRS Program saves the taxpayers approximately \$186,000 annually. The average yearly premium for structures in the SFHA is \$604.

Fairfax County is one of only two jurisdictions in Virginia to achieve a Class 7 in the Community Rating System. Better flood insurance rates are provided for lower CRS ratings.

The improved class is based on several recently completed activities, including a newsletter and a flood protection information web site, which can be seen at

www.fairfaxcounty.gov/dpwes/stormwater/floodprotect.htm

Additional details can be seen at

www.fairfaxcounty.gov/dpwes/stormwater/

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Code of the County of Roanoke, Virginia

Sec. 8.1-9. - Penalties, injunctions, and other legal actions.

- (a) Violators of this chapter shall be guilty of a class I misdemeanor.
- (b) Civil penalties:
 - (1) A civil penalty in the amount listed on the schedule below shall be assessed for each violation of the respective offenses:
 - a. Commencement of land disturbing activity without an approved plan as provided in section 8.1-6 shall be one thousand dollars (\$1,000.00) per day.
 - b. Vegetative measures. Failure to comply with items 1, 2 and 3 of the minimum standards shall be three hundred dollars (\$300.00) per violation per day.
 - c. Structural measures. Failure to comply with items 2, 4, 9, 10, 11, 15 and 17 of the minimum standards shall be three hundred dollars (\$300.00) per violation per day.
 - d. Watercourse measures. Failure to comply with items 12, 13 and 15 of the minimum standards shall be three hundred dollars (\$300.00) per violation per day.
 - e. Underground utility measures. Failure to comply with item 16(a) and/or (c) shall be three hundred dollars (\$300.00) per violation per day.
 - f. Failure to obey a stop work order shall be one thousand dollars (\$1,000) per day.
 - g. Failure to stop work when permit revoked one thousand dollars (\$1,000) per day.
 - (2) Each day during which the violation is found to have existed shall constitute a separate offense. However, in no event shall a series of specified violations arising from the same operative set of facts result in civil penalties which exceed a total of ten thousand dollars (\$10,000.00), except that a series of violations arising from the commencement of land-disturbing activities without an approved plan for any site shall not result in civil penalties which exceed a total of ten thousand dollars (\$10,000.00). The assessment of civil penalties according to this schedule shall be in lieu of criminal sanctions and shall preclude the prosecution of such violation as a misdemeanor under subsection (a) of this section.
- (c) The director of community development or his assignee may apply to the circuit court of the county to enjoin a violation or a threatened violation of this chapter, without the necessity of showing that an adequate remedy at law does not exist.
- (d) In addition to any criminal penalties provided under this chapter, any person who violates any provision of this chapter may be liable to the county in a civil action for damages.
- (e) Civil penalty enumerated. Without limiting the remedies which may be obtained in this section, any person violating or failing, neglecting, or refusing to obey any injunction, mandamus or other remedy obtained pursuant to this section shall be subject, in the discretion of the court, to a civil penalty not to exceed two thousand dollars (\$2,000.00) for each violation. A civil action for such violation or failure may be brought by the county. Any civil penalties assessed by a court shall be paid into the treasury of the county, except that where the violator is the locality itself, or its agent, the court shall direct the penalty to be paid into the state treasury.
- (f) With the consent of any person who has violated or failed, neglected or refused to obey any regulation or condition of a permit or any provision of this chapter, the county may provide for the payment of civil charges for violations in specific sums, not to exceed the limit specified in subsection (b)(2) of this section. Such civil charges shall be instead of any appropriate civil penalty which could be imposed under subsection (b) or (e).
- (g) The county's attorney shall, upon request of the county or the permit issuing authority, take legal action to enforce the provisions of this chapter.

(h) Compliance with the provisions of this chapter shall be prima facie evidence in any legal or equitable proceeding for damages caused by erosion, siltation or sedimentation that all requirements of law have been met, and the complaining party must show negligence in order to recover any damages.

(Ord. No. 012704-9, § 2, 1-27-04; Ord. No. 052708-19, § 1, 5-27-08)

Sec. 8-1.11. - Civil violations, summons, generally.

(a) The director shall prepare an appropriate erosion and sediment control civil violation summons for use in enforcing the provisions of this chapter.

(b) Any inspector of the plan approving authority charged with enforcing this chapter shall serve upon any owner or permittee in violation of this chapter, a summons notifying the owner or permittee of said violation. If unable to serve the owner or permittee in person, the inspector may notify by summons an owner or permittee committing or suffering the existence of a violation by certified, return receipt requested mail, of the infraction. The county sheriff's office may also deliver the summons. The summons shall contain the following information:

(1) The name and address of the person charged.

(2) The nature of the violation and chapter provision(s) being violated.

(3) The location, date, and time that the violation occurred, or was observed.

(4) The amount of the civil penalty assessed for the violation.

(5) The manner, location, and time that the civil penalty may be paid to the county.

(6) The right of the recipient of the summons to elect to stand trial for the infraction and the date of such trial.

(c) The summons shall provide that any person summoned for a violation may, within five (5) days of actual receipt of the summons or, within ten (10) days from the date of mailing of the summons, elect to pay the civil penalty by making an appearance in person, or in writing by mail to the county treasurer's office and, by such appearance, may enter a waiver of trial, admit liability, and pay the civil penalty established for the violation charged and provide that a signature to an admission of liability shall have the same force and effect as a judgment in court; however, an admission shall not be deemed a criminal conviction for any purpose.

(d) If a person charged with a violation does not elect to enter a waiver of trial and admit liability, the county shall cause the sheriff of county to serve the summons on the person charged in the manner prescribed by law. The violation shall be tried in general district court in the same manner and with the same right of appeal as provided for in Title 8.01 of the Code of Virginia. In any trial for a scheduled violation authorized by this section, it shall be the burden of the county to show the liability of the violator by the preponderance of the evidence. Any admission of liability, or finding of liability shall not be a criminal conviction for any purpose.

(e) The remedies provided for in this section are cumulative, and are not exclusive and, except as provided above, shall be in addition to any other remedies by law.

(f) The owner or permittee may pay the civil penalty to the treasurer prior to the trial date, provided he also pays necessary court costs in addition to the civil penalty.

(g) Within the time period prescribed in (c), above, the owner or permittee, may contest the violation by presenting it to the director, who shall certify the contest in writing, on an appropriate form, to the general district court.

(h) Failure to pay the civil penalty, or to contest the violation, within the time period prescribed in (c), above, shall result in the immediate issuance of a stop work order and the revocation of the permit, if any.

(Ord. No. 012704-9, § 2, 1-27-04)

CODE AND ORDINANCE WORKSHEET

The Code and Ordinance Worksheet allows an in-depth review of the standards, ordinances, and codes (i.e., the development rules) that shape how development occurs in your community. You are guided through a systematic comparison of your local development rules against the model development principles. Institutional frameworks, regulatory structures and incentive programs are included in this review. The worksheet consists of a series of questions that correspond to each of the model development principles. Points are assigned based on how well the current development rules agree with the site planning benchmarks derived from the model development principles.

The worksheet is intended to guide you through the first two steps of a local site planning roundtable.

Step 1: Find out what the Development Rules are in your community.

Step 2: See how your rules stack up to the Model Development Principles.

The homework done in these first two steps helps to identify which development rules are potential candidates for change.

PREPARING TO COMPLETE THE CODE AND ORDINANCE WORKSHEET

Two tasks need to be performed before you begin in the worksheet. First, you must identify all the development rules that apply in your community. Second, you must identify the local, state, and federal authorities that actually administer or enforce the development rules within your community. Both tasks require a large investment of time. The development process is usually shaped by a complex labyrinth of regulations, criteria, and authorities. A team approach may be helpful. You may wish to enlist the help of a local plan reviewer, land planner, land use attorney, or civil engineer. Their real-world experience with the development process is often very useful in completing the worksheet.

Identify the Development Rules

Gather the key documents that contain the development rules in your community. A list of potential documents to look for is provided in Table 1. Keep in mind that the information you may want on a particular development rule is not always found in code or regulation, and maybe hidden in supporting design manuals, review checklists, guidance document or construction specifications. In most cases, this will require an extensive search. Few communities include all of their rules in a single document. Be prepared to contact state and federal, as well as local agencies to obtain copies of the needed documents.

Table 1: Key Local Documents that will be Needed to Complete the COW

Zoning Ordinance
Subdivision Codes
Street Standards or Road Design Manual
Parking Requirements
Building and Fire Regulations/Standards
Stormwater Management or Drainage Criteria
Buffer or Floodplain Regulations
Environmental Regulations
Tree Protection or Landscaping Ordinance
Erosion and Sediment Control Ordinances
Public Fire Defense Masterplans
Grading Ordinance

Identify Development Authorities

Once the development rules are located, it is relatively easy to determine which local agencies or authorities are actually responsible for administering and enforcing the rules. Completing this step will provide you with a better understanding of the intricacies of the development review process and helps identify key members of a future local roundtable. Table 2 provides a simple framework for identifying the agencies that influence development in your community. As you will see, space is provided not only for local agencies, but for state and federal agencies as well. In some cases, state and federal agencies may also exercise some authority over the local development process (e.g., wetlands, some road design, and stormwater).

USING THE WORKSHEET: HOW DO YOUR RULES STACK UP TO THE MODEL DEVELOPMENT PRINCIPLES?

Completing the Worksheet

Once you have located the documents that outline your development rules and identified the authorities responsible for development in your community, you are ready for the next step. You can now use the worksheet to compare your development rules to the model development principles. The worksheet is presented at the end of this chapter. The worksheet presents seventy-seven site planning benchmarks. The benchmarks are posed as questions. Each benchmark focuses on a specific site design practice, such as the minimum diameter of cul-de-sacs, the minimum width of streets, or the minimum parking ratio for a certain land use. You should refer to the codes, ordinances, and plans identified in the first step to determine the appropriate development rule. The questions require either a yes or no response or specific numeric criteria. If your development rule agrees with the site planning benchmark, you are awarded points.

Calculating Your Score

A place is provided on each page of the worksheet to keep track of your running score. In addition, the worksheet is subdivided into three categories:

- Residential Streets and Parking Lots (Principles No. 1 - 10)
- Lot Development (Principles No. 11 - 16)
- Conservation of Natural Areas (Principles No. 17 - 22).


For each category, you are asked to subtotal your score. This “**Time to Assess**” allows you to consider which development rules are most in line with the site planning benchmarks and what rules are potential candidates for change.

The total number of points possible for all of the site planning benchmarks is 100. Your overall score provides a general indication of your community's ability to support environmentally sensitive development. As a general rule, if your overall score is lower than 80, then it may be advisable to systematically reform your local development rules. A score sheet is provided at end of the Code and Ordinance Worksheet to assist you in determining where your community's score places in respect to the Model Development Principles. Once you have completed the worksheet, go back and review your responses. Determine if there are specific areas that need improvement (e.g., development rules that govern road design) or if your development rules are generally pretty good. This review is key to implementation of better development: assessment of your current development rules and identification of impediments to innovative site design. This review also directly leads into the next step: a site planning roundtable process conducted at the local government level. The primary tasks of a local roundtable are to systematically review existing development rules and then determine if changes can or should be made. By providing a much-needed framework for overcoming barriers to better development, the site planning roundtable can serve as an important tool for local change.

1. Street Width

What is the minimum pavement width allowed for streets in low density residential developments that have less than 500 daily trips (ADT)?


22 feet

If your answer is between **18-22 feet**, give yourself **4 points** 

4

At higher densities are parking lanes allowed to also serve as traffic lanes (i.e., queuing streets)?

YES/ NO

If your answer is **YES**, give yourself **3 points** 


No

Notes on Street Width (include source documentation such as name of document, section and page #):

2. Street Length

Do street standards promote the most efficient street layouts that reduce overall street length?

YES/ NO

If your answer is **YES**, give yourself **1 point** 


No

Notes on Street Length (include source documentation such as name of document, section and page #):

3. Right-of-Way Width

What is the minimum right of way (ROW) width for a residential street?


50 feet

If your answer is **less than 45 feet**, give yourself **3 points** 

No

Does the code allow utilities to be placed under the paved section of the ROW?

YES/ NO

If your answer is **YES**, give yourself **1 point** 


1


Notes on ROW Width (include source documentation such as name of document, section and page #):

4. Cul-de-Sacs

What is the minimum radius allowed for cul-de-sacs?

45 feet


If your answer is **less than 35 feet**, give yourself **3 points** 

If your answer is **36 feet to 45 feet**, give yourself **1 point** 

1

Can a landscaped island be created within the cul-de-sac?


YES/ NO

If your answer is **YES**, give yourself **1 point** 

No

Are alternative turnarounds such as "hammerheads" allowed on short streets in low density residential developments?

YES/ NO

If your answer is **YES**, give yourself **1 point** 

1

Notes on Cul-de-Sacs (include source documentation such as name of document, section and page #):

Code and Ordinance Worksheet

Subtotal Page 5

7

5. Vegetated Open Channels

Allowed but not encouraged

Are curb and gutters required for most residential street sections?

YES/ NO

If your answer is **NO**, give yourself 2 points

2

Are there established design criteria for swales that can provide stormwater quality treatment (i.e., dry swales, biofilters, or grass swales)?

YES/ NO

If your answer is **YES**, give yourself 2 points

2

Notes on Vegetated Open Channel (include source documentation such as name of document, section and page #):

6. Parking Ratios

What is the minimum parking ratio for a professional office building (per 1000 ft² of gross floor area)?

3.3 spaces

If your answer is **less than 3.0 spaces**, give yourself 1 point

0

What is the minimum required parking ratio for shopping centers (per 1,000 ft² gross floor area)?

4 spaces

If your answer is **4.5 spaces or less**, give yourself 1 point

1

What is the minimum required parking ratio for single family homes (per home)?

1 spaces

If your answer is **less than or equal to 2.0 spaces**, give yourself 1 point

1

Are your parking requirements set as maximum or median (rather than minimum) requirements?

YES/ NO

If your answer is **YES**, give yourself 2 points

No

Considering in
Zoning Ordinance
rewrite.

Notes on Parking Ratios (include source documentation such as name of document, section and page #):

7. Parking Codes

Is the use of shared parking arrangements promoted?

YES/ NO

If your answer is **YES**, give yourself 1 point

1

Are model shared parking agreements provided?

YES/ NO

If your answer is **YES**, give yourself 1 point

1

Are parking ratios reduced if shared parking arrangements are in place?

YES/ NO

If your answer is **YES**, give yourself 1 point

1

If mass transit is provided nearby, is the parking ratio reduced?

YES/ NO

If your answer is **YES**, give yourself 1 point

1

Notes on Parking Codes (include source documentation such as name of document, section and page #):

Code and Ordinance Worksheet

Subtotal Page 6

10

8. Parking Lots

What is the minimum stall width for a standard parking space?

If your answer is **9 feet or less**, give yourself **1 point**

8.5 feet

What is the minimum stall length for a standard parking space?

If your answer is **18 feet or less**, give yourself **1 point**

18 feet

Are at least 30% of the spaces at larger commercial parking lots required to have smaller dimensions for compact cars?

If your answer is **YES**, give yourself **1 point**

YES/ NO

Can pervious materials be used for spillover parking areas?

If your answer is **YES**, give yourself **2 points**

YES/ NO

Notes on Parking Lots (include source documentation such as name of document, section and page #):

9. Structured Parking

Are there any incentives to developers to provide parking within garages rather than surface parking lots?

YES/ NO

If your answer is **YES**, give yourself **1 point**

Notes on Structured Parking (include source documentation such as name of document, section and page #):

10. Parking Lot Runoff

Is a minimum percentage of a parking lot required to be landscaped?

YES/ NO

If your answer is **YES**, give yourself **2 points**

Is the use of bioretention islands and other stormwater practices within landscaped areas or setbacks allowed?

YES/ NO

If your answer is **YES**, give yourself **2 points**

Notes on Parking Lot Runoff (include source documentation such as name of document, section and page #):



Time to Assess: Principles 1 - 10 focused on the codes, ordinances, and standards that determine the size, shape, and construction of parking lots, roadways, and driveways in the suburban landscape. There were a total of 40 points available for Principles 1 - 10. What was your total score?

Subtotal Page 5 7 + Subtotal Page 6 10 + Subtotal Page 7 8 = 25

Where were your codes and ordinances most in line with the principles? What codes and ordinances are potential impediments to better development?

11. Open Space Design

Are open space or cluster development designs allowed in the community?

If your answer is **YES**, give yourself 3 points

If your answer is **NO**, skip to question No. 12

YES/ NO

3

Is land conservation or impervious cover reduction a major goal or objective of the open space design ordinance?

If your answer is **YES**, give yourself 1 point

New code will focus more on this

YES/ NO

No

Are the submittal or review requirements for open space design greater than those for conventional development?

If your answer is **NO**, give yourself 1 point

Will meet with new Zoning Ordinance.

YES/ NO

No

Is open space or cluster design a by-right form of development?

If your answer is **YES**, give yourself 1 point

YES/ NO

1

Are flexible site design criteria available for developers that utilize open space or cluster design options (e.g., setbacks, road widths, lot sizes)?

If your answer is **YES**, give yourself 2 points

New Code may address

YES/ NO

No

Notes on Open Space Design (include source documentation such as name of document, section and page #):

Code and Ordinance Worksheet

Subtotal Page 8

4

12. Setbacks and Frontages

Are irregular lot shapes (e.g., pie-shaped, flag lots) allowed in the community?

If your answer is **YES**, give yourself 1 point

YES/ NO

1

What is the minimum requirement for front setbacks for a one half (½) acre residential lot?

If your answer is **20 feet or less**, give yourself 1 point

30 feet

What is the minimum requirement for rear setbacks for a one half (½) acre residential lot?

If your answer is **25 feet or less**, give yourself 1 point

40 feet

What is the minimum requirement for side setbacks for a one half (½) acre residential lot?

If your answer is **8 feet or less**, give yourself 1 points

15 feet

What is the minimum frontage distance for a one half (½) acre residential lot?

If your answer is **less than 80 feet**, give yourself 2 points

75 feet

1

Notes on Setback and Frontages (include source documentation such as name of document, section and page #):

13. Sidewalks

What is the minimum sidewalk width allowed in the community?

If your answer is **4 feet or less**, give yourself 2 points

4 feet

Are sidewalks always required on both sides of residential streets?

If your answer is **NO**, give yourself 2 points

2

YES/ NO

2

Are sidewalks generally sloped so they drain to the front yard rather than the street?

If your answer is **YES**, give yourself 1 point

YES/ NO

No

Can alternate pedestrian networks be substituted for sidewalks (e.g., trails through common areas)?

If your answer is **YES**, give yourself 1 point

YES/ NO

No

Notes on Sidewalks (include source documentation such as name of document, section and page #):

14. Driveways

What is the minimum driveway width specified in the community?

If your answer is **9 feet or less (one lane) or 18 feet (two lanes)**, give yourself 2 points

18 (two way) feet

2

Code and Ordinance Worksheet

Subtotal Page 9

8

Can pervious materials be used for single family home driveways (e.g., grass, gravel, porous pavers, etc)?

YES/ NO

If your answer is **YES**, give yourself **2** points 15P

YES/ NO

Can a "two track" design be used at single family driveways?

If your answer is **YES**, give yourself **1** point 15P

YES/ NO

Are shared driveways permitted in residential developments?

If your answer is **YES**, give yourself **1** point 15P

Notes on Driveways (include source documentation such as name of document, section and page #):

15. Open Space Management

Skip to question 16 if open space, cluster, or conservation developments are not allowed in your community.

Does the community have enforceable requirements to establish associations that can effectively manage open space?

YES/ NO

If your answer is **YES**, give yourself **2** points 15P

Are open space areas required to be consolidated into larger units?

YES/ NO

If your answer is **YES**, give yourself **1** point 15P

Does a minimum percentage of open space have to be managed in a natural condition?

YES/ NO

If your answer is **YES**, give yourself **1** point 15P

Are allowable and unallowable uses for open space in residential developments defined?

YES/ NO

If your answer is **YES**, give yourself **1** point 15P

Can open space be managed by a third party using land trusts or conservation easements?

YES/ NO

If your answer is **YES**, give yourself **1** point 15P

Notes on Open Space Management (include source documentation such as name of document, section and page #):

16. Rooftop Runoff

Can rooftop runoff be discharged to yard areas?

YES/ NO

If your answer is **YES**, give yourself **2** points 15P

Do current grading or drainage requirements allow for temporary ponding of stormwater on front yards or rooftops?

YES/ NO

If your answer is **YES**, give yourself **2** points 15P

Notes on Rooftop Runoff (include source documentation such as name of document, section and page #):

Code and Ordinance Worksheet

Subtotal Page 10



Time to Assess: Principles 11 through 16 focused on the regulations which determine lot size, lot shape, housing density, and the overall design and appearance of our neighborhoods. There were a total of **36** points available for Principles 11 - 16. What was your total score?

Subtotal Page 8 4 + Subtotal Page 9 8 + Subtotal Page 10 9 = 21

Where were your codes and ordinances most in line with the principles? What codes and ordinances are potential impediments to better development?

17. Buffer Systems

Is there a stream buffer ordinance in the community?

If your answer is **YES**, give yourself 2 points ES

YES/ NO

2

If so, what is the minimum buffer width?

If your answer is **75 feet or more**, give yourself 1 point ES

100 feet

1

Is expansion of the buffer to include freshwater wetlands, steep slopes or the 100-year floodplain required?

If your answer is **YES**, give yourself 1 point ES

YES/ NO

0

Notes on Buffer Systems (include source documentation such as name of document, section and page #):

18. Buffer Maintenance

If you do not have stream buffer requirements in your community, skip to question No. 19

Does the stream buffer ordinance specify that at least part of the stream buffer be maintained with native vegetation?

If your answer is **YES**, give yourself 2 points ES

YES/ NO

2

Does the stream buffer ordinance outline allowable uses?

If your answer is **YES**, give yourself 1 point

YES/ NO

1

Code and Ordinance Worksheet

Subtotal Page 11

6

Does the ordinance specify enforcement and education mechanisms?

YES/ NO

If your answer is **YES**, give yourself **1 point** ESP

Notes on Buffer Systems (include source documentation such as name of document, section and page #):

19. Clearing and Grading

Is there any ordinance that requires or encourages the preservation of natural vegetation at residential development sites?

YES/ NO

If your answer is **YES**, give yourself **2 points** ESP

Do reserve septic field areas need to be cleared of trees at the time of development?

YES/ NO

If your answer is **NO**, give yourself **1 point** ESP

Notes on Buffer Maintenance (include source documentation such as name of document, section and page #):

20. Tree Conservation

If forests or specimen trees are present at residential development sites, does some of the stand have to be preserved?

YES/ NO

If your answer is **YES**, give yourself **2 points** ESP

Are the limits of disturbance shown on construction plans adequate for preventing clearing of natural vegetative cover during construction?

YES/ NO

If your answer is **YES**, give yourself **1 point** ESP

Notes on Tree Conservation (include source documentation such as name of document, section and page #):

21. Land Conservation Incentives

Are there any incentives to developers or landowners to conserve non-regulated land (open space design, density bonuses, stormwater credits or lower property tax rates)?

YES/ NO

If your answer is **YES**, give yourself **2 points** ESP

Is flexibility to meet regulatory or conservation restrictions (density compensation, buffer averaging, transferable development rights, off-site mitigation) offered to developers?

YES/ NO

If your answer is **YES**, give yourself **2 points** ESP

Notes on Land Cons. Incentives (include source documentation such as name of document, section and page #):

Code and Ordinance Worksheet

Subtotal Page 12

22. Stormwater Outfalls


Is stormwater required to be treated for quality before it is discharged?

YES/ NO

If your answer is **YES**, give yourself **2 points** 2


Are there effective design criteria for stormwater best management practices (BMPs)?

YES/ NO

If your answer is **YES**, give yourself **1 point** 1


Can stormwater be directly discharges into a jurisdictional wetland without pretreatment?

YES/ NO

If your answer is **NO**, give yourself **1 point** 1

Does a floodplain management ordinance that restricts or prohibits development within the 100-year floodplain exist?

YES/ NO

If your answer is **YES**, give yourself **2 points** 2

Notes on Stormwater Outfalls (include source documentation such as name of document, section and page #):

Code and Ordinance Worksheet

Subtotal Page 13

6**Time to Assess:** Principles 17 through 22 addressed the codes and ordinances that promote (or impede) protection of existing natural areas and incorporation of open spaces into new development. There were a total of 24 points available for Principles 17 - 22. What was your total score?Subtotal Page 11 6 + Subtotal Page 12 7 + Subtotal Page 13 6 =19

Where were your codes and ordinances most in line with the principles? What codes and ordinances are potential impediments to better development?

To determine final score, add up subtotal from each  **Time to Assess**

Principles 1 - 10 (Page 8)

25

Principles 11 - 16 (Page 11)






21

Principles 17 - 22 (Page 13)

19**TOTAL**65

SCORING (A total of 100 points are available):

Your Community's Score

90- 100		Congratulations! Your community is a real leader in protecting streams, lakes, and estuaries. Keep up the good work.
80 - 89		Your local development rules are pretty good, but could use some tweaking in some areas.
79 - 70		Significant opportunities exist to improve your development rules. Consider creating a site planning roundtable.
60 - 69		Development rules are inadequate to protect your local aquatic resources. A site planning roundtable would be very useful.
less than 60		Your development rules definitely are not environmentally friendly. Serious reform of the development rules is needed.